

ABSTRACT OF THE DISCLOSURE

An oil injected screw compressor has an oil separating mechanism integrated with a compressor and hence is made compact in size. A male rotor and a female rotor are received in a rotor casing. The shafts of these rotors are arranged substantially in a horizontal direction. An inner cylindrical wall is arranged under the rotor casing with its center axis arranged substantially in a vertical direction and an outer wall is arranged substantially in a concentric position with the inner wall. A lower casing is hermetically joined to the outer wall. Oil in the working gas which is injected in the compression process of the oil injected screw compressor is primarily separated from the working gas between the inner wall and the outer wall. The primarily separated working gas flows up inside the inner wall and is guided through a manifold into an oil separating element case where the oil is secondarily separated from the working gas.